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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|-------------------------|---------------------|------------------|
| 10/626,182 | 07/24/2003 | Zachary Merlynn Loafman | AUS920030464US1 | 1555 |

7590 01/03/2006

Mr. Volel Emile
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| EXAMINER |
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PATEL, KAUSHIKKUMAR M

| ART UNIT | PAPER NUMBER |
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2188

DATE MAILED: 01/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|--------------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/626,182 | LOAFMAN, ZACHARY MERLYNN | |
| | Examiner | Art Unit | |
| | Kaushikkumar Patel | 2188 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-12 and 15-19 is/are rejected.
- 7) ☒ Claim(s) 6, 7, 13, 14 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figures 1-2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims 1-5, 8-12 and 15-19 recite limitation in "memory" in lines 9, 13-14, 19, 28 and 30 on page 17, lines 2, 19, 23-24, 30 and 32 on page 18, lines 7, 9, 12, 14, and 30 on page 19, lines 2, 7-8, 13, 17, 19, 22, 24 on page 20. There is insufficient antecedent basis for this limitation in the claim. It is not clear from the word "memory", which memory it refers to, storage or memory, because storage is also a memory. It should be appropriately changed to "the random access memory (the RAM) or the cache".

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 8-10 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over P.J. Fleming and J.J. Parker (IBM technical disclosure bulletin, vol. 33 issue 9, February 1991) (Fleming herein after) further in view of Jun Hasegawa et al. (Japan patent no. JP 61136145 A) (Jun herein after)

As per claim 1, Fleming teaches method of improving prefetching (page 327, paragraph 1) and determining, upon receiving a request to read data randomly from a file (well known in the art as per specification page 10, lines 19-21), reading the range of the data from the storage at once (taught as File Access History (FAH) value informs the read-ahead program the amount of the data that should be cached (some, most, all) page 328, paragraphs 1 and 2). Fleming fails to teach determining whether previous data was read from the memory (cache) or from the storage and depending upon the result of the determination next data is accessed from the cache or from the storage device.

Jun teaches a method to read data from a file (see effect of the invention on page 5), determining, whether previous data has been read from a memory (cache) or from the storage device and attempting to read the data from the memory if previous data has been read from the memory or from the storage device if previous data has

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been read from the storage device (taught as when hit was found in the cache during immediately previous instruction retrieving it is highly likely that a hit is found in the cache and when no hit was found (i.e. data was read from storage), it is highly unlikely that hit is found and direct read from main memory should be stated) (page 3, lines 1-7).

It would have been obvious to one having ordinary skilled in the art at the time of the invention would have modified the teachings of the Fleming to improve the prefetching by accessing the data from the cache if previous data was read from the cache or from the storage if previous data was accessed from the storage as taught above to decrease the overhead in the event of a mishit (page 3, paragraph 2, lines 1-2).

As per claim 2, Fleming teaches that all data is read from the storage device using FAH (page 328, paragraphs 1 and 2).

As per claim 3, Fleming teaches that FAH value can be obtained when the file is first opened (page 327, paragraph 5).

Claims 8-10 and 15-17 are rejected under the same rationale as applied to claims 1-3 above.

Allowable Subject Matter

6. Claims 4-7, 11-14 and 17-20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

7. Claims 4-7, 11-14 and 17-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

Prior art on record fails to teach increasing or decreasing the trust value by fixed award value or penalty value respectively in case of hit or miss. Also increasing the trust value when data was accessed from storage device and penalty value is larger than award value.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ng (5,623,608) teaches a system for data access using sequential and non-sequential patterns.

Kedem et al. (5,778,436) teaches a cache memory system respective to cache misses to prefetch a data block from main memory based upon the data block that caused the cache miss.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaushikkumar Patel whose telephone number is 571-272-5536. The examiner can normally be reached on 8.00 am - 4.30 pm.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 571-272-4210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


kmp

Kaushikkumar Patel
Examiner
Art Unit 2188


MANO PADMANABHAN
SUPERVISORY PATENT EXAMINER